MUSIC APPLICATION (MOBILE APP UI)

INTERN PROJECT PHASE – 1

SUBJECT: MOBILE APP UI

Submitted by

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DECLARATION

I, Srikanth P, hereby declare that the work presented in this document titled "**Phase 1 UI/UX Design Project 2: Music Application (Mobile App UI)**" is the result of my individual effort during my internship at Nexus Info. This project, focusing on the design of an E-learning company website, has been completed solely by me and has not been submitted, in whole or in part, for any other purpose or examination.

I acknowledge that Naveen Kumar, the Founder of Nexus Info, provided me with the opportunity to undertake this project as part of my internship. His guidance and support have been invaluable in shaping my internship experience and professional growth.

I further declare that all sources of information and material used in this project have been duly acknowledged and referenced.

PLACE: Coimbatore **NEXUS INFO**

DATE: 02.05.2024 **SRIKANTH P**

ACKNOWLEDGEMENT

Naveen Kumar: Founder of Nexus Info, for entrusting me with the opportunity to undertake the Phase 1 UI/UX Design project as my first internship assignment. His confidence in my abilities and support throughout this endeavor have been invaluable in shaping my internship experience and professional growth.

I also extend my appreciation to the Nexus Info team for their encouragement and assistance whenever needed.

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- **Srikanth P**

SYNOPSIS

The Phase 1 UI/UX Design Project 2: Music Application (Mobile App UI) encompasses a thorough exploration of user interface principles. This software is tailored for the Android operating system, offering effortless music playback with a user-friendly interface. It’s simple UI and unique menu contribute to delivering an optimal user experience.

This report provides insights into designing a music player specifically for the Android OS, utilizing Java and XML. The music player, employing a front-end and back-end architecture, comprises segments for music playback and player interface with a music list.

The Android platform offers resources for managing media playback, facilitating the creation of an interface between users and their music files. Through this report, we aim to develop a foundational music player application for Android, leveraging Java for the back-end logic and XML for designing the user interface.

The application will display a list of songs available on the user's device, enabling them to select songs for playback. It will be developed using the Android SDK, ensuring compatibility with all Android OS handsets. The music player demonstrates stable and convenient performance during testing.

TABLE OF CONTENTS

1. INTRODUCTION

1.1 PROJECT OVERVIEW

The Music Application project is focused on providing users with convenient access to the music files stored on their Android devices without the need for authentication or login. Leveraging Android Studio, Java, and XML, our application will offer a straightforward and intuitive interface for browsing and playing local music files.

Here's an overview of the key features and components:

Local Music Library: Scan and organize songs, albums, artists, and genres from device storage.

Playback Controls: Intuitive interface for play, pause, skip, volume adjustment, and progress tracking.

Playlist Management: Create custom playlists, add/remove songs, reorder tracks, and rename playlists.

Search Functionality: Easy access to specific songs or albums through keyword search.

Offline Playback: Download songs for uninterrupted listening even without internet connectivity.

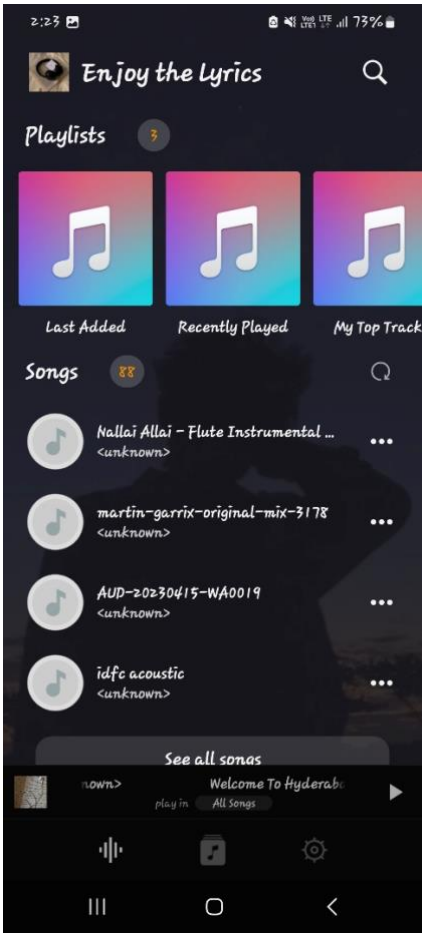
Settings and Preferences: Customize audio quality, themes, and playback preferences to enhance the user experience.

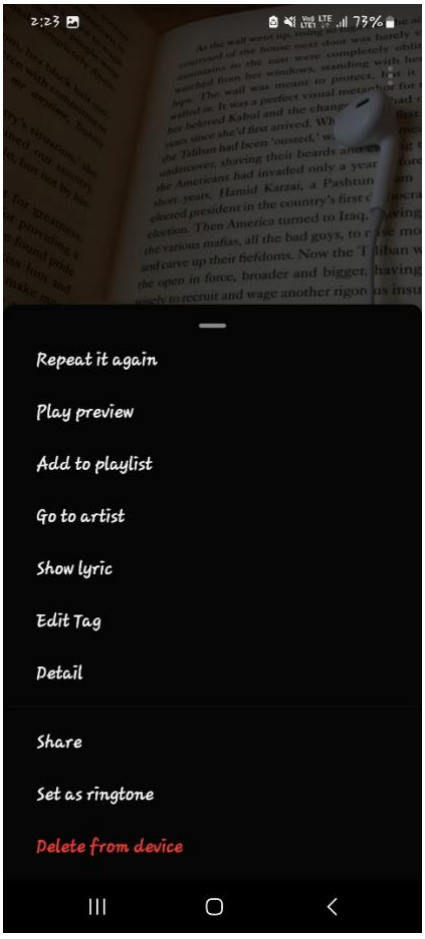
2. HOMEPAGE DESIGN

2.1 DESIGN CONSIDERATIONS

HOMEPAGE DESIGN: The homepage welcomes users with a visually striking layout, featuring vibrant album covers, artist images, and trending playlists to engage users immediately.

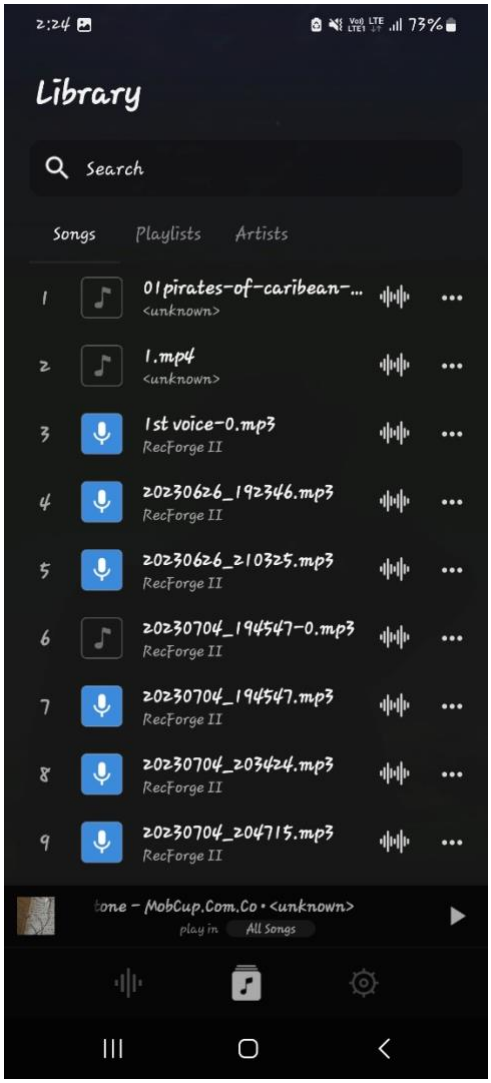
NAVIGATION MENU: A sleek and intuitive menu is located at the bottom of the screen, providing easy access to various app sections like Home, Discover, Playlists, and Settings.



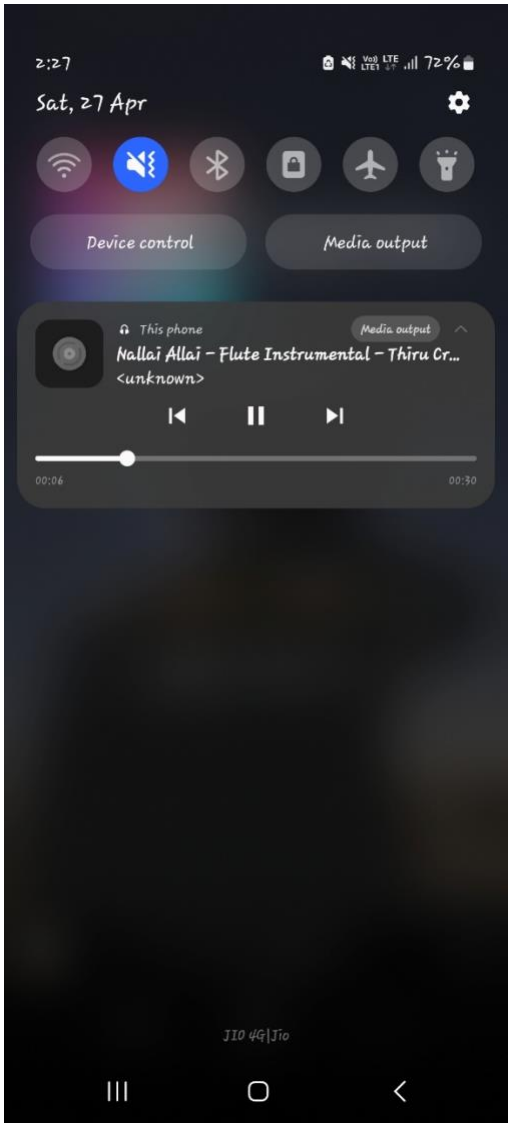


2.2 PLAYLIST AND MUSIC PLAYER DESIGN

Playlist Interface: Users can effortlessly create and manage playlists with a clean and intuitive interface. Drag-and-drop functionality allows for easy playlist customization, while visually appealing thumbnails enhance the playlist browsing experience.



Music Player: The music player boasts a modern design with minimalist controls, ensuring a clutter-free interface. Play, pause, skip, and volume controls are easily accessible, allowing users to manage their music playback seamlessly.



2.3 USER INTERACTIONS

Smooth Transitions: Seamless transitions and subtle animations are implemented throughout the app, providing users with a fluid and delightful experience as they navigate between different screens and interact with various elements.

Interactive Elements: Interactive elements like tapping on an album cover to play a song or swiping to switch between tracks add an extra layer of engagement, making the user experience more dynamic and enjoyable.

3. NAVIGATION AND USER FLOW

3.1 NAVIGATION SYSTEM DESIGN

Navigating through a music application should be intuitive and seamless, allowing users to effortlessly explore its features and content. Our navigation system is meticulously designed to provide users with easy access to all areas of the app while maintaining a sense of clarity and coherence.

3.2 BOTTOM NAVIGATION BAR

A bottom navigation bar serves as the foundation of our navigation system, offering quick and convenient access to the app's core functionalities. Positioned at the bottom of the screen for optimal reachability, the navigation bar features iconic icons paired with clear labels, ensuring that users can easily identify and understand each option.

3.3 NAVIGATION IMPLEMENTATION

The designed navigation system and user flow will be implemented seamlessly into the interface design, ensuring consistency across all screens and devices. Interactive elements and navigational aids will be strategically placed to enhance usability and encourage user interaction throughout the interface.

Home:

The Home tab serves as the central hub of the app, welcoming users with personalized recommendations, trending playlists, and new releases. It provides a curated selection of content tailored to each user's unique preferences, encouraging them to dive deeper into the world of music.

Discover:

The Discover tab is dedicated to helping users explore new music and discover hidden gems. Here, users can browse through curated playlists, explore genres, and discover new artists, providing

endless opportunities for musical exploration and serendipitous discovery.

Playlists:

The Playlists tab is where users can access and manage their curated playlists. Whether they're organizing their favorite songs into themed playlists or discovering new ones curated by the app, this tab serves as a centralized hub for all things related to playlist creation and curation.

Settings:

The Settings tab provides users with access to the app's configuration options, allowing them to customize their experience to suit their preferences. From adjusting playback settings to managing account information, users can tailor the app to meet their specific needs and preferences.

Dynamic Tab Bar:

To enhance usability and adaptability, our navigation system features a dynamic tab bar that adjusts its appearance based on the user's context within the app. For example, when viewing a playlist or album, the tab bar may include additional options such as shuffle, repeat, and queue management, providing quick access to relevant actions without cluttering the interface.

Gesture-Based Navigation:

In addition to traditional tab-based navigation, our app also incorporates gesture-based navigation for a more immersive and intuitive user experience. Users can swipe horizontally to navigate between different sections of the app, making it easy to move between pages and explore content with a natural and fluid motion.

Contextual Navigation:

Throughout the app, contextual navigation elements provide users with additional pathways to explore content related to their current context. For example, when viewing an artist profile, users can easily navigate to related albums, songs, or playlists, providing a seamless and immersive browsing experience.

4. COLOR PALETTE AND TYPOGRAPHY

4.1 COLOR PALETTE SELECTION

In our music application, the choice of colors is pivotal in creating a visually appealing and emotionally resonant user experience. Our carefully curated color palette is designed to evoke emotions, enhance usability, and create a cohesive and immersive interface that reflects the essence of music.

Primary Colors:

Primary Blue (#3F51B5): This deep shade of blue serves as the primary color in our palette, symbolizing the depth and richness of musical expression. It exudes a sense of tranquility and sophistication, providing a stable foundation for the overall design.

Primary Dark Blue (#303F9F): A slightly darker shade of blue complements our primary color, adding depth and contrast to the palette. It enhances visual hierarchy and provides a sense of balance and cohesion throughout the interface.

Accent Color:

Flat Orange (#FF9500): Vibrant and energetic, flat orange injects warmth and vitality into our color scheme, symbolizing creativity, enthusiasm, and passion for music. It serves as an accent color, adding visual interest and highlighting important elements and interactions within the app.

Background Colors:

Flat White (#F5F5F5): Flat white serves as the background color for most interface elements, creating a clean and neutral backdrop that allows other colors and content to stand out. It ensures readability, accessibility, and visual clarity, enhancing the overall user experience.

Splash Color (Black): A bold and dramatic splash color of black adds depth and contrast to our palette, creating a striking visual impact during app startup or transitions. It sets the stage for an immersive and captivating user experience from the moment the app is launched.

Interactive Colors:

Flat Teal Blue (#5AC8FA): Flat teal blue is used for interactive elements such as buttons, links, and selected states, providing visual feedback and enhancing usability. It's cool and refreshing hue adds a modern and stylish touch to the interface, inviting users to engage with the app.

4.2 TYPOGRAPHY STYLES DEFINITION

In our music application, typography plays a crucial role in conveying information, setting the tone, and enhancing readability. We've carefully selected a range of typefaces and styles to ensure consistency, clarity, and visual appeal across all aspects of the app.

Open Sans:

Bold: Open Sans Bold is used for headings, titles, and other prominent text elements that require emphasis and impact.

Extrabold: Open Sans Extrabold is employed for additional emphasis, particularly in instances where a stronger visual presence is desired.

Extrabold Italic: Open Sans Extrabold Italic adds a touch of sophistication and flair to headings and other design elements, providing a stylish and modern aesthetic.

Italic: Open Sans Italic is utilized for emphasis and differentiation within blocks of text, providing a subtle variation in style while maintaining readability.

Light: Open Sans Light is used sparingly for secondary text elements or instances where a delicate and airy aesthetic is desired.

Light Italic: Open Sans Light Italic provides a gentle contrast to regular text, adding a touch of elegance and refinement to the typography.

San Francisco:

Regular: San Francisco Regular is the default typeface for body text and general interface elements, offering optimal readability and clarity on Android devices.

Bold: San Francisco Bold is used for headings and titles, providing a strong visual presence and commanding attention.

Regular Italic: San Francisco Regular Italic is employed for emphasis and differentiation within blocks of text, adding a subtle variation in style while maintaining coherence with the default system font.

Sans Semibold:

Sans Semibold: Sans Semibold is utilized for secondary headings, subheadings, and other text elements that require a balance between boldness and readability.

Sans Semibold Italic: Sans Semibold Italic adds a touch of sophistication and style to emphasized text, providing visual interest and variation within the typography.

Default Phone Fonts:

In addition to the specified typefaces and styles, our project also supports the default system fonts of Android devices. This ensures consistency and compatibility across a wide range of devices, allowing users to experience the app in a familiar and cohesive manner.

4.3 TYPOGRAPHY GUIDELINES

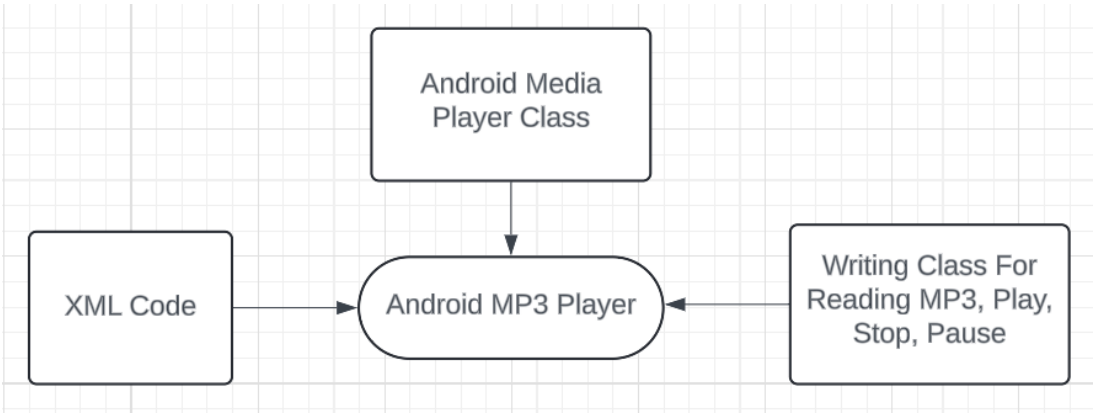
Consistency: Maintain consistent typography styles throughout the app to ensure a cohesive and harmonious visual experience.

Readability: Prioritize readability by choosing appropriate font weights, sizes, and styles for different types of content and screen sizes.

Accessibility: Ensure that typography styles meet accessibility standards, including sufficient color contrast and adequate spacing for users with visual impairments.

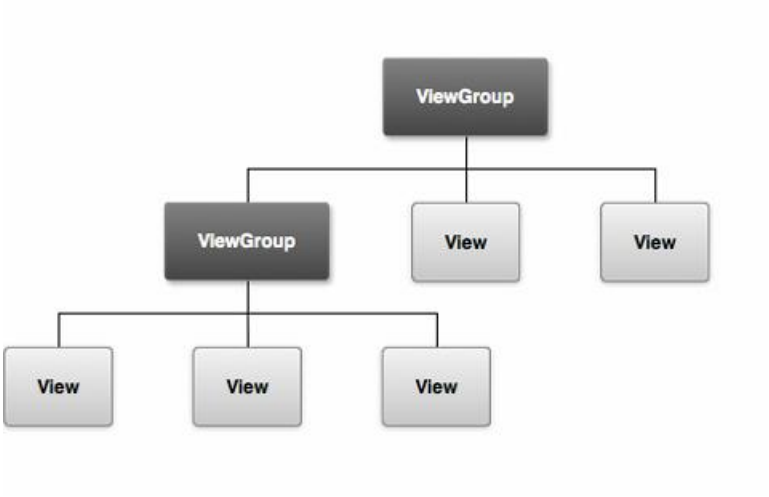
Scalability: Choose scalable typefaces and styles that remain legible and visually appealing across various screen resolutions and device sizes.

4.4 BUILDING BLOCKS OF ANDROID CODE



5. DEVELOPMENT PHASE

5.1 Layout



The user interface for each component of your app is defined using a hierarchy of View and View Group objects. Each view group is an invisible container that organizes child views, while the child views may be input controls or other widgets that draw some part of the UI.

5.2 Buttons

A button consists of text or an icon (or both text and an icon) that communicates what action occurs when the user touches it.

5.3 Equalizer Button

5.4 Repeat Button

5.5 Basic Control Buttons

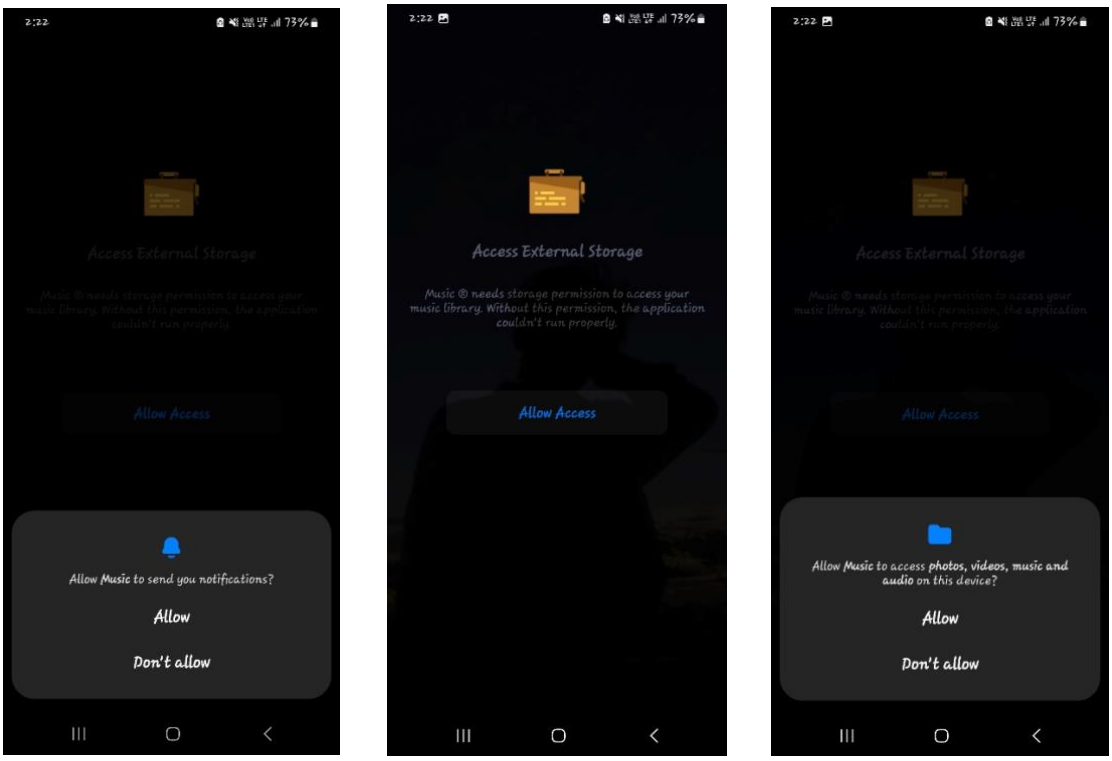
5.6 Shuffle Buttons

5.7 Playlist Buttons

5.8 Launcher Buttons

6. INPUT DESIGN

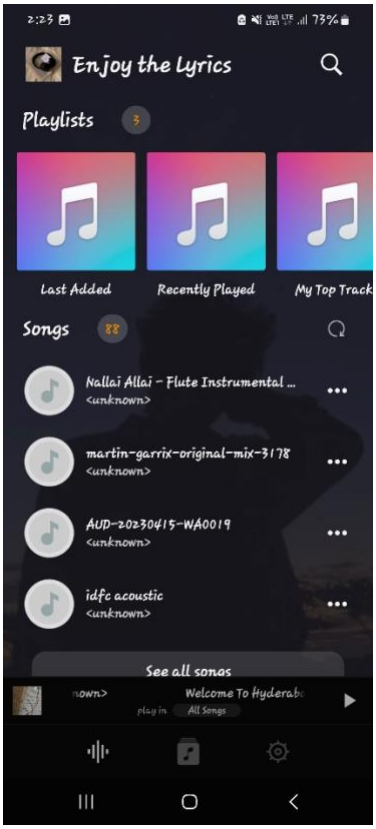
In our music application, input design not only encompasses the design and functionality of various input elements but also includes managing and requesting necessary permissions to access device features or user data.

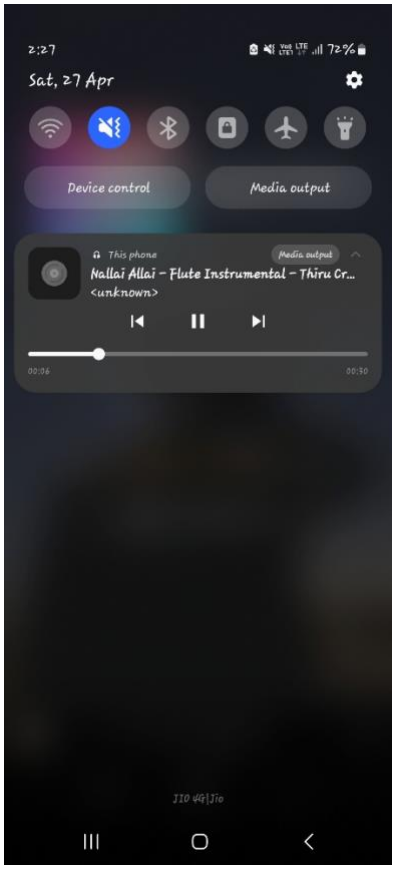


Description: The input design of the Music Player Permission Access Screen is displayed

7. OUTPUT DESIGN

Our music app's output design offers easy menu navigation, personalized homepage recommendations, and intuitive playlist management. During playback, essential controls accompany song metadata for a seamless listening experience. Quick search functionality and customizable settings enhance usability, while visual feedback and accessibility features ensure inclusivity. Overall, our design prioritizes ease of use, engagement, and accessibility for all users.

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Device control
Media output
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Media output
Nallaï Allaï – Flute Instrumental – Thiru Cr...
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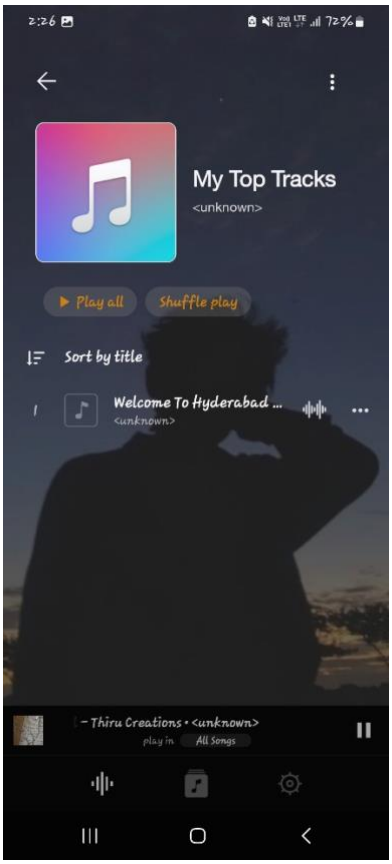
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My Top Tracks
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Play all
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Sort by title
1
Welcome To Hyderabad ...
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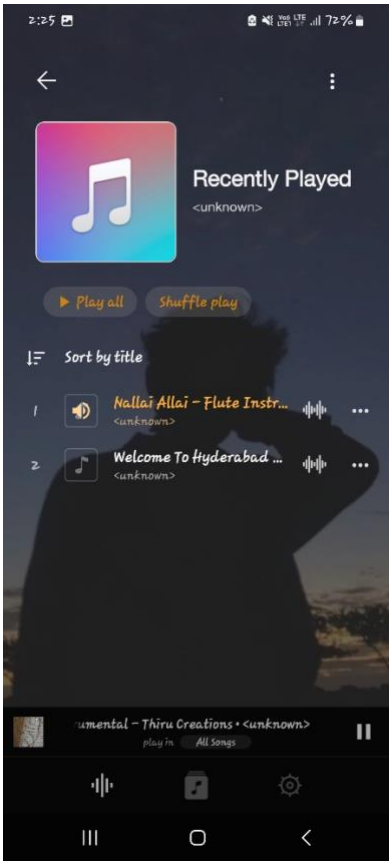
– Thiru Creations • <unknown>
play in All Songs


2:25
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Recently Played
<unknown>
Play all
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Sort by title
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Nallaï Allaï – Flute Instr...
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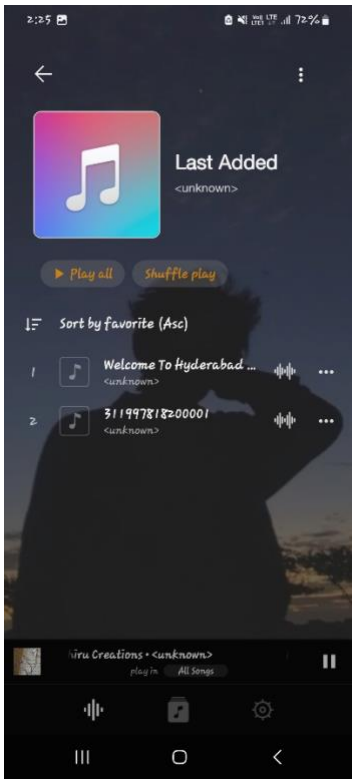
2
Welcome To Hyderabad ...
<unknown>
umental – Thiru Creations • <unknown>
play in All Songs


2:25
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Last Added
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Play all
Shuffle play
Sort by favorite (Asc)
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Welcome To Hyderabad ...
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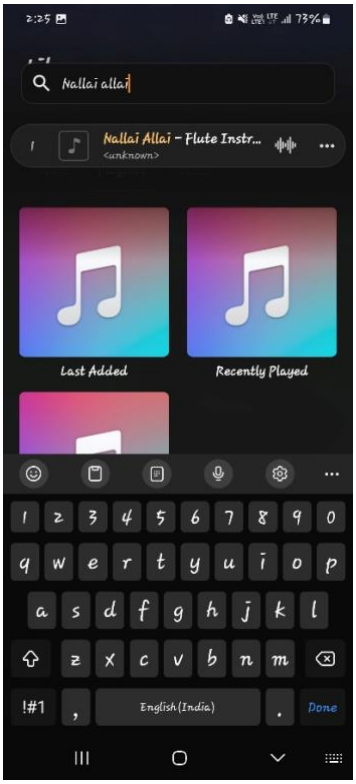
iru Creations • <unknown>
play in All Songs


2:25
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Nallaï Allaï – Flute Instr...
<unknown>
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Recently Played
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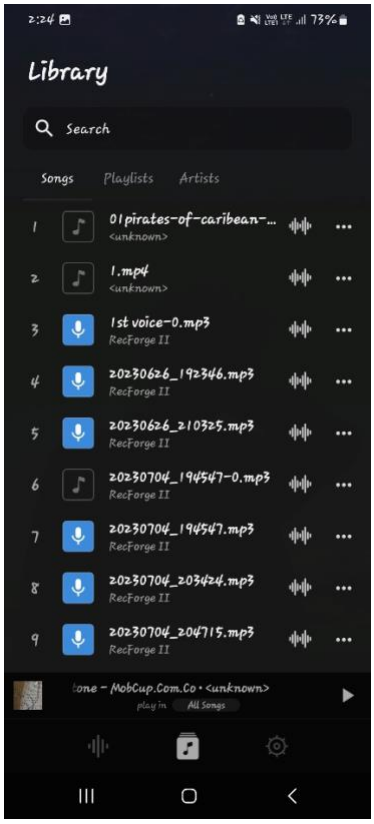
English (India)
Done


2:24
73%
Library
Search
Songs
Playlists
Artists
Last Added
Recently Played
My Top Tracks
d – Premalu _ BGM Ringtone – MobCup
play in All Songs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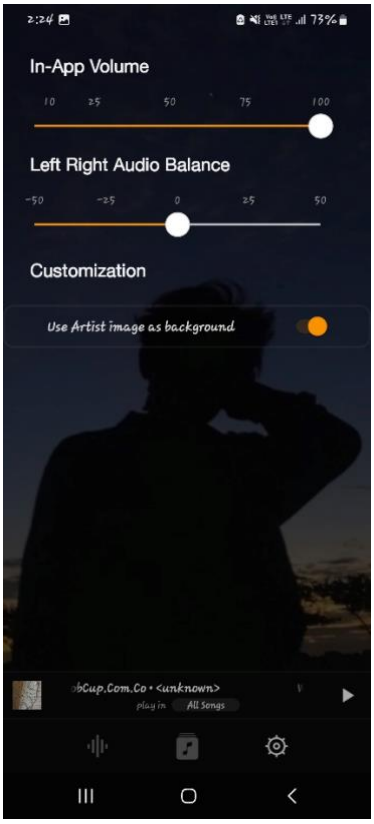
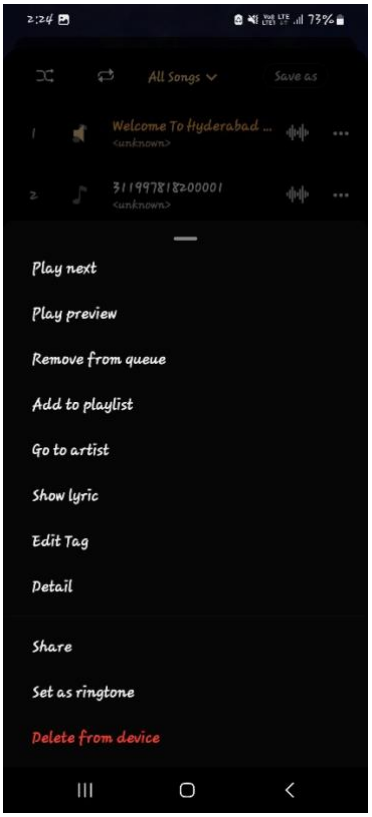

In-App Volume
10
25
50
75
100
Left Right Audio Balance
-50
-25
0
25
50
Customization
Use Artist image as background


All Songs
Save as
Welcome To Hyderabad ...
Play next
Play preview
Remove from queue
Add to playlist
Go to artist
Show lyric
Edit Tag
Detail
Share
Set as ringtone
Delete from device


All Songs
Save as
Welcome To Hyderabad ...
AUD-20240223-WA0005
AUD-20240129-WA0003
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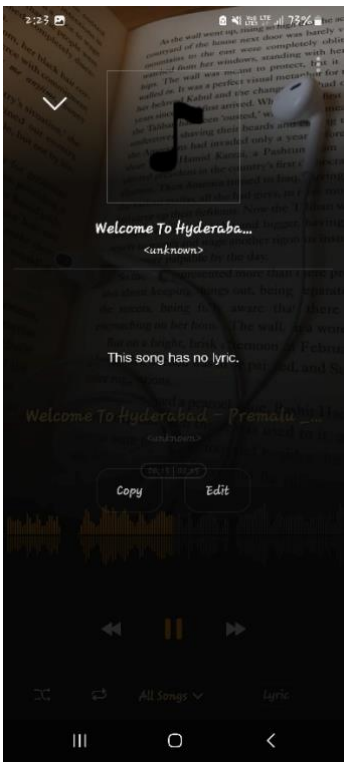
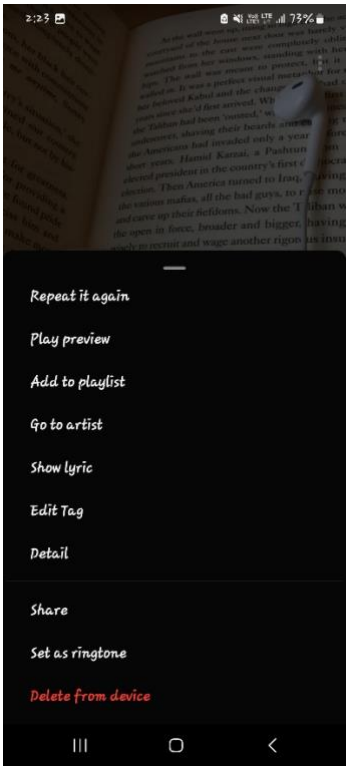
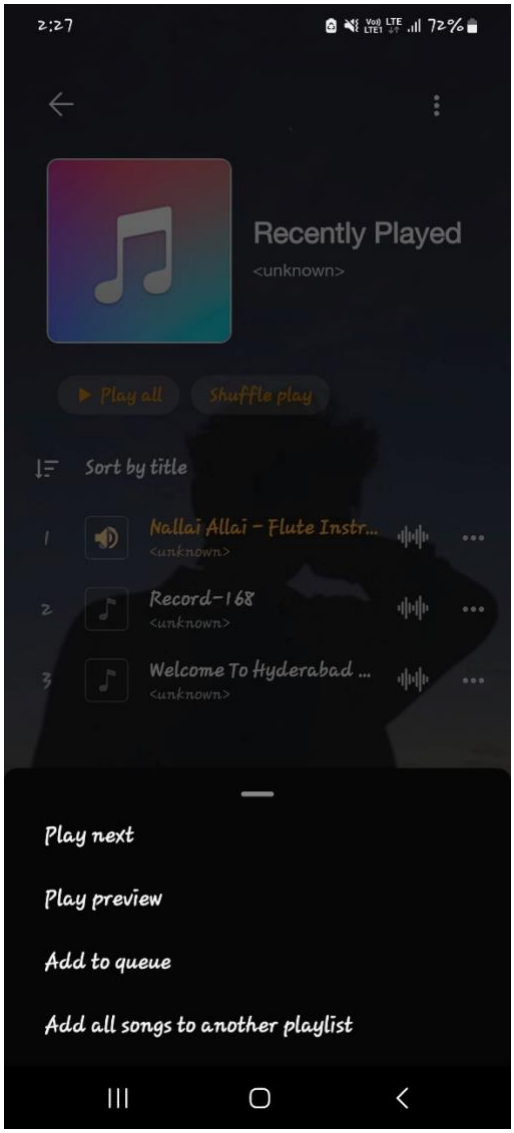

Welcome To Hyderaba...
This song has no lyric.
Copy
Edit


Repeat it again
Play preview
Add to playlist
Go to artist
Show lyric
Edit Tag
Detail
Share
Set as ringtone
Delete from device



Description: The output design of the application is display.

8. SOFTWARE TESTING

Testing is an integral part of the app development process. By running tests against your app consistently, you can verify your app's correctness, functional behavior, and usability before you release it publicly.

You can manually test your app by navigating through it. You might use different devicesand emulators, change the system language, and try to generate every user error or traverse everyuser flow.

FUNCTIONAL TESTING:

- Testing is normally achieved by user interface-initiated test flows.
- Not just the flow of a use case is tested, but the various business rules are also tested. Testing is done by certifying the requirements. i.e. whether the application is working based on the requirements.

ANDROID UI TESTING:

- This is a user-centric testing of the application.
- In this test phase, items such as visibility of text in various screens of the app, interactive messages, alignment of data, the look and feel of the app for different screens, size of fields etc. are tested under this.

INSTALLATION TESTING:

- There are two types of apps on an Android device, i.e., pre-installed applications and the applications which are installed later by the user.
- For both above, installation testing needs to be carried out. This is to ensuresmooth installation of the application without ending up in errors, partial installation etc.
- Upgrade and uninstallation testing are carried out as part of Installation testing.

9. CONCLUSION

In conclusion, our music application boasts a meticulously crafted design that prioritizes user experience, engagement, and accessibility.

From intuitive menu navigation to personalized homepage recommendations and seamless playlist management, every aspect of the app is designed to enhance usability and enjoyment.

With quick search functionality, customizable settings, and visual feedback, users can effortlessly explore and enjoy their favorite music.

Our commitment to inclusivity ensures that all users, regardless of ability, can fully engage with the app.

Overall, our music application delivers a seamless and immersive experience that empowers users to discover, create, and enjoy their music journey to the fullest.

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